



SEQUENCE LISTING

<110> Ni, Jian
Gentz, Reiner L
Yu, Guo-Liang
Su, Jeffrey
Rosen, Craig A

<120> Death Domain Containing Receptor 5

<130> 1488.131000C

<140> 10/648,825

<141> 2003-08-27

<150> 60/040,846

<151> 1997-03-17

<150> 60/054,021

<151> 1997-07-29

<150> 09/042,538

<151> 1998-03-17

<150> 60/132,498

<151> 1998-05-04

<150> 60/133,238

<151> 1998-05-07

<150> 60/148,939

<151> 1998-08-13

<150> 09/565,009

<151> 2000-05-04

<150> 60/406,307

<151> 2002-08-28

<150> 60/413,747

<151> 2002-09-27

<160> 14

<170> PatentIn version 3.1

<210> 1

<211> 1600

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (130)..(1362)

<220>

```

<221> sig_peptide
<222> (130)..(282)

<220>
<221> mat_peptide
<222> (283)..(1362)

<400> 1
cacgcgtccg cgggcgcggc cggagaaccc cgcaatcttt gcgcccacaa aatacaccga      60

cgatgcccga tctactttta gggctgaaac ccacgggcct gagagactat aagagcgttc      120

cctaccgcc atg gaa caa cgg gga cag aac gcc ccg gcc gct tcg ggg gcc      171
      Met Glu Gln Arg Gly Gln Asn Ala Pro Ala Ala Ser Gly Ala
            -50                      -45                      -40

cgg aaa agg cac ggc cca gga ccc agg gag gcg cgg gga gcc agg cct      219
Arg Lys Arg His Gly Pro Gly Pro Arg Glu Ala Arg Gly Ala Arg Pro
      -35                      -30                      -25

ggg ccc cgg gtc ccc aag acc ctt gtg ctc gtt gtc gcc gcg gtc ctg      267
Gly Pro Arg Val Pro Lys Thr Leu Val Leu Val Val Ala Ala Val Leu
      -20                      -15                      -10

ctg ttg gtc tca gct gag tct gct ctg atc acc caa caa gac cta gct      315
Leu Leu Val Ser Ala Glu Ser Ala Leu Ile Thr Gln Gln Asp Leu Ala
      -5                      -1 1                      5                      10

ccc cag cag aga gcg gcc cca caa caa aag agg tcc agc ccc tca gag      363
Pro Gln Gln Arg Ala Ala Pro Gln Gln Lys Arg Ser Ser Pro Ser Glu
      15                      20                      25

gga ttg tgt cca cct gga cac cat atc tca gaa gac ggt aga gat tgc      411
Gly Leu Cys Pro Pro Gly His His Ile Ser Glu Asp Gly Arg Asp Cys
      30                      35                      40

atc tcc tgc aaa tat gga cag gac tat agc act cac tgg aat gac ctc      459
Ile Ser Cys Lys Tyr Gly Gln Asp Tyr Ser Thr His Trp Asn Asp Leu
      45                      50                      55

ctt ttc tgc ttg cgc tgc acc agg tgt gat tca ggt gaa gtg gag cta      507
Leu Phe Cys Leu Arg Cys Thr Arg Cys Asp Ser Gly Glu Val Glu Leu
      60                      65                      70                      75

agt ccc tgc acc acg acc aga aac aca gtg tgt cag tgc gaa gaa ggc      555
Ser Pro Cys Thr Thr Thr Arg Asn Thr Val Cys Gln Cys Glu Glu Gly
      80                      85                      90

acc ttc cgg gaa gaa gat tct cct gag atg tgc cgg aag tgc cgc aca      603
Thr Phe Arg Glu Glu Asp Ser Pro Glu Met Cys Arg Lys Cys Arg Thr
      95                      100                      105

ggg tgt ccc aga ggg atg gtc aag gtc ggt gat tgt aca ccc tgg agt      651
Gly Cys Pro Arg Gly Met Val Lys Val Gly Asp Cys Thr Pro Trp Ser
      110                      115                      120

gac atc gaa tgt gtc cac aaa gaa tca ggc atc atc ata gga gtc aca      699

```

Asp	Ile	Glu	Cys	Val	His	Lys	Glu	Ser	Gly	Ile	Ile	Ile	Gly	Val	Thr		
125						130					135						
gtt	gca	gcc	gta	gtc	ttg	att	gtg	gct	gtg	ttt	gtt	tgc	aag	tct	tta	747	
Val	Ala	Ala	Val	Val	Leu	Ile	Val	Ala	Val	Phe	Val	Cys	Lys	Ser	Leu		
140					145					150					155		
ctg	tgg	aag	aaa	gtc	ctt	cct	tac	ctg	aaa	ggc	atc	tgc	tca	ggg	ggg	795	
Leu	Trp	Lys	Lys	Val	Leu	Pro	Tyr	Leu	Lys	Gly	Ile	Cys	Ser	Gly	Gly		
				160					165					170			
ggg	ggg	gac	cct	gag	cgt	gtg	gac	aga	agc	tca	caa	cga	cct	ggg	gct	843	
Gly	Gly	Asp	Pro	Glu	Arg	Val	Asp	Arg	Ser	Ser	Gln	Arg	Pro	Gly	Ala		
			175					180					185				
gag	gac	aat	gtc	ctc	aat	gag	atc	gtg	agt	atc	ttg	cag	ccc	acc	cag	891	
Glu	Asp	Asn	Val	Leu	Asn	Glu	Ile	Val	Ser	Ile	Leu	Gln	Pro	Thr	Gln		
		190					195					200					
gtc	cct	gag	cag	gaa	atg	gaa	gtc	cag	gag	cca	gca	gag	cca	aca	ggg	939	
Val	Pro	Glu	Gln	Glu	Met	Glu	Val	Gln	Glu	Pro	Ala	Glu	Pro	Thr	Gly		
	205					210				215							
gtc	aac	atg	ttg	tcc	ccc	ggg	gag	tca	gag	cat	ctg	ctg	gaa	ccg	gca	987	
Val	Asn	Met	Leu	Ser	Pro	Gly	Glu	Ser	Glu	His	Leu	Leu	Glu	Pro	Ala		
220					225					230					235		
gaa	gct	gaa	agg	tct	cag	agg	agg	agg	ctg	ctg	gtt	cca	gca	aat	gaa	1035	
Glu	Ala	Glu	Arg	Ser	Gln	Arg	Arg	Arg	Leu	Leu	Val	Pro	Ala	Asn	Glu		
				240				245						250			
ggg	gat	ccc	act	gag	act	ctg	aga	cag	tgc	ttc	gat	gac	ttt	gca	gac	1083	
Gly	Asp	Pro	Thr	Glu	Thr	Leu	Arg	Gln	Cys	Phe	Asp	Asp	Phe	Ala	Asp		
			255					260					265				
ttg	gtg	ccc	ttt	gac	tcc	tgg	gag	ccg	ctc	atg	agg	aag	ttg	ggc	ctc	1131	
Leu	Val	Pro	Phe	Asp	Ser	Trp	Glu	Pro	Leu	Met	Arg	Lys	Leu	Gly	Leu		
		270					275					280					
atg	gac	aat	gag	ata	aag	gtg	gct	aaa	gct	gag	gca	gcg	ggc	cac	agg	1179	
Met	Asp	Asn	Glu	Ile	Lys	Val	Ala	Lys	Ala	Glu	Ala	Ala	Gly	His	Arg		
	285					290					295						
gac	acc	ttg	tac	acg	atg	ctg	ata	aag	tgg	gtc	aac	aaa	acc	ggg	cga	1227	
Asp	Thr	Leu	Tyr	Thr	Met	Leu	Ile	Lys	Trp	Val	Asn	Lys	Thr	Gly	Arg		
300					305					310					315		
gat	gcc	tct	gtc	cac	acc	ctg	ctg	gat	gcc	ttg	gag	acg	ctg	gga	gag	1275	
Asp	Ala	Ser	Val	His	Thr	Leu	Leu	Asp	Ala	Leu	Glu	Thr	Leu	Gly	Glu		
				320					325					330			
aga	ctt	gcc	aag	cag	aag	att	gag	gac	cac	ttg	ttg	agc	tct	gga	aag	1323	
Arg	Leu	Ala	Lys	Gln	Lys	Ile	Glu	Asp	His	Leu	Leu	Ser	Ser	Gly	Lys		
			335					340					345				
ttc	atg	tat	cta	gaa	ggg	aat	gca	gac	tct	gcc	atg	tcc	taagtgtgat			1372	
Phe	Met	Tyr	Leu	Glu	Gly	Asn	Ala	Asp	Ser	Ala	Met	Ser					

350	355	360	
tctcttcagg aagtgagacc ttccctgggtt tacctttttt ctggaaaaag cccaactgga			1432
ctccagtcag taggaaagtg ccacaattgt cacatgaccg gtactggaag aaactctccc			1492
atccaacatc acccagtgga tggaacatcc tgtaactttt cactgcactt ggcattattt			1552
ttataagctg aatgtgataa taaggacact atggaaaaaa aaaaaaaaa			1600

<210> 2
 <211> 411
 <212> PRT
 <213> Homo sapiens

<400> 2

Met	Glu	Gln	Arg	Gly	Gln	Asn	Ala	Pro	Ala	Ala	Ser	Gly	Ala	Arg	Lys
	-50					-45					-40				

Arg	His	Gly	Pro	Gly	Pro	Arg	Glu	Ala	Arg	Gly	Ala	Arg	Pro	Gly	Pro
-35					-30					-25					-20

Arg	Val	Pro	Lys	Thr	Leu	Val	Leu	Val	Val	Ala	Ala	Val	Leu	Leu	Leu
				-15					-10					-5	

Val	Ser	Ala	Glu	Ser	Ala	Leu	Ile	Thr	Gln	Gln	Asp	Leu	Ala	Pro	Gln
	-1	1					5					10			

Gln	Arg	Ala	Ala	Pro	Gln	Gln	Lys	Arg	Ser	Ser	Pro	Ser	Glu	Gly	Leu
15					20						25				

Cys	Pro	Pro	Gly	His	His	Ile	Ser	Glu	Asp	Gly	Arg	Asp	Cys	Ile	Ser
30					35					40					45

Cys	Lys	Tyr	Gly	Gln	Asp	Tyr	Ser	Thr	His	Trp	Asn	Asp	Leu	Leu	Phe
			50						55					60	

Cys	Leu	Arg	Cys	Thr	Arg	Cys	Asp	Ser	Gly	Glu	Val	Glu	Leu	Ser	Pro
			65					70					75		

Cys	Thr	Thr	Thr	Arg	Asn	Thr	Val	Cys	Gln	Cys	Glu	Glu	Gly	Thr	Phe
	80						85					90			

Arg	Glu	Glu	Asp	Ser	Pro	Glu	Met	Cys	Arg	Lys	Cys	Arg	Thr	Gly	Cys
95						100					105				

Pro Arg Gly Met Val Lys Val Gly Asp Cys Thr Pro Trp Ser Asp Ile
 110 115 120 125

Glu Cys Val His Lys Glu Ser Gly Ile Ile Ile Gly Val Thr Val Ala
 130 135 140

Ala Val Val Leu Ile Val Ala Val Phe Val Cys Lys Ser Leu Leu Trp
 145 150 155

Lys Lys Val Leu Pro Tyr Leu Lys Gly Ile Cys Ser Gly Gly Gly Gly
 160 165 170

Asp Pro Glu Arg Val Asp Arg Ser Ser Gln Arg Pro Gly Ala Glu Asp
 175 180 185

Asn Val Leu Asn Glu Ile Val Ser Ile Leu Gln Pro Thr Gln Val Pro
 190 195 200 205

Glu Gln Glu Met Glu Val Gln Glu Pro Ala Glu Pro Thr Gly Val Asn
 210 215 220

Met Leu Ser Pro Gly Glu Ser Glu His Leu Leu Glu Pro Ala Glu Ala
 225 230 235

Glu Arg Ser Gln Arg Arg Arg Leu Leu Val Pro Ala Asn Glu Gly Asp
 240 245 250

Pro Thr Glu Thr Leu Arg Gln Cys Phe Asp Asp Phe Ala Asp Leu Val
 255 260 265

Pro Phe Asp Ser Trp Glu Pro Leu Met Arg Lys Leu Gly Leu Met Asp
 270 275 280 285

Asn Glu Ile Lys Val Ala Lys Ala Glu Ala Ala Gly His Arg Asp Thr
 290 295 300

Leu Tyr Thr Met Leu Ile Lys Trp Val Asn Lys Thr Gly Arg Asp Ala
 305 310 315

Ser Val His Thr Leu Leu Asp Ala Leu Glu Thr Leu Gly Glu Arg Leu
 320 325 330

Ala Lys Gln Lys Ile Glu Asp His Leu Leu Ser Ser Gly Lys Phe Met
 335 340 345

Tyr Leu Glu Gly Asn Ala Asp Ser Ala Met Ser
 350 355 360

<210> 3
 <211> 455
 <212> PRT
 <213> human

<400> 3

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
 1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
 20 25 30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
 35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220
 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240
 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
 245 250 255
 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
 260 265 270
 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
 275 280 285
 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
 290 295 300
 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
 305 310 315 320
 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
 325 330 335
 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
 340 345 350
 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
 355 360 365
 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
 370 375 380
 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
 385 390 395 400
 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
 405 410 415
 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
 420 425 430
 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
 435 440 445
 Pro Ala Pro Ser Leu Leu Arg
 450 455

<210> 4
 <211> 335
 <212> PRT
 <213> human

<400> 4

Met	Leu	Gly	Ile	Trp	Thr	Leu	Leu	Pro	Leu	Val	Leu	Thr	Ser	Val	Ala	1	5	10	15
Arg	Leu	Ser	Ser	Lys	Ser	Val	Asn	Ala	Gln	Val	Thr	Asp	Ile	Asn	Ser	20	25	30	
Lys	Gly	Leu	Glu	Leu	Arg	Lys	Thr	Val	Thr	Thr	Val	Glu	Thr	Gln	Asn	35	40	45	
Leu	Glu	Gly	Leu	His	His	Asp	Gly	Gln	Phe	Cys	His	Lys	Pro	Cys	Pro	50	55	60	
Pro	Gly	Glu	Arg	Lys	Ala	Arg	Asp	Cys	Thr	Val	Asn	Gly	Asp	Glu	Pro	65	70	75	80
Asp	Cys	Val	Pro	Cys	Gln	Glu	Gly	Lys	Glu	Tyr	Thr	Asp	Lys	Ala	His	85	90	95	
Phe	Ser	Ser	Lys	Cys	Arg	Arg	Cys	Arg	Leu	Cys	Asp	Glu	Gly	His	Gly	100	105	110	
Leu	Glu	Val	Glu	Ile	Asn	Cys	Thr	Arg	Thr	Gln	Asn	Thr	Lys	Cys	Arg	115	120	125	
Cys	Lys	Pro	Asn	Phe	Phe	Cys	Asn	Ser	Thr	Val	Cys	Glu	His	Cys	Asp	130	135	140	
Pro	Cys	Thr	Lys	Cys	Glu	His	Gly	Ile	Ile	Lys	Glu	Cys	Thr	Leu	Thr	145	150	155	160
Ser	Asn	Thr	Lys	Cys	Lys	Glu	Glu	Gly	Ser	Arg	Ser	Asn	Leu	Gly	Trp	165	170	175	
Leu	Cys	Leu	Leu	Leu	Leu	Pro	Ile	Pro	Leu	Ile	Val	Trp	Val	Lys	Arg	180	185	190	
Lys	Glu	Val	Gln	Lys	Thr	Cys	Arg	Lys	His	Arg	Lys	Glu	Asn	Gln	Gly	195	200	205	
Ser	His	Glu	Ser	Pro	Thr	Leu	Asn	Pro	Glu	Thr	Val	Ala	Ile	Asn	Leu	210	215	220	
Ser	Asp	Val	Asp	Leu	Ser	Lys	Tyr	Ile	Thr	Thr	Ile	Ala	Gly	Val	Met	225	230	235	240
Thr	Leu	Ser	Gln	Val	Lys	Gly	Phe	Val	Arg	Lys	Asn	Gly	Val	Asn	Glu	245	250	255	
Ala	Lys	Ile	Asp	Glu	Ile	Lys	Asn	Asp	Asn	Val	Gln	Asp	Thr	Ala	Glu	260	265	270	
Gln	Lys	Val	Gln	Leu	Leu	Arg	Asn	Trp	His	Gln	Leu	His	Gly	Lys	Lys	275	280	285	
Glu	Ala	Tyr	Asp	Thr	Leu	Ile	Lys	Asp	Leu	Lys	Lys	Ala	Asn	Leu	Cys	290	295	300	

Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys Asp Ile Thr Ser
 305 310 315 320

Asp Ser Glu Asn Ser Asn Phe Arg Asn Glu Ile Gln Ser Leu Val
 325 330 335

<210> 5
 <211> 417
 <212> PRT
 <213> human

<400> 5

Met Glu Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu Leu
 1 5 10 15

Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr Arg Ser Pro Arg
 20 25 30

Cys Asp Cys Ala Gly Asp Phe His Lys Lys Ile Gly Leu Phe Cys Cys
 35 40 45

Arg Gly Cys Pro Ala Gly His Tyr Leu Lys Ala Pro Cys Thr Glu Pro
 50 55 60

Cys Gly Asn Ser Thr Cys Leu Val Cys Pro Gln Asp Thr Phe Leu Ala
 65 70 75 80

Trp Glu Asn His His Asn Ser Glu Cys Ala Arg Cys Gln Ala Cys Asp
 85 90 95

Glu Gln Ala Ser Gln Val Ala Leu Glu Asn Cys Ser Ala Val Ala Asp
 100 105 110

Thr Arg Cys Gly Cys Lys Pro Gly Trp Phe Val Glu Cys Gln Val Ser
 115 120 125

Gln Cys Val Ser Ser Ser Pro Phe Tyr Cys Gln Pro Cys Leu Asp Cys
 130 135 140

Gly Ala Leu His Arg His Thr Arg Leu Leu Cys Ser Arg Arg Asp Thr
 145 150 155 160

Asp Cys Gly Thr Cys Leu Pro Gly Phe Tyr Glu His Gly Asp Gly Cys
 165 170 175

Val Ser Cys Pro Thr Ser Thr Leu Gly Ser Cys Pro Glu Arg Cys Ala
 180 185 190

Ala Val Cys Gly Trp Arg Gln Met Phe Trp Val Gln Val Leu Leu Ala
 195 200 205

Gly Leu Val Val Pro Leu Leu Leu Gly Ala Thr Leu Thr Tyr Thr Tyr
 210 215 220

Arg His Cys Trp Pro His Lys Pro Leu Val Thr Ala Asp Glu Ala Gly

225		230		235		240									
Met	Glu	Ala	Leu	Thr	Pro	Pro	Pro	Ala	Thr	His	Leu	Ser	Pro	Leu	Asp
				245					250					255	
Ser	Ala	His	Thr	Leu	Leu	Ala	Pro	Pro	Asp	Ser	Ser	Glu	Lys	Ile	Cys
			260					265					270		
Thr	Val	Gln	Leu	Val	Gly	Asn	Ser	Trp	Thr	Pro	Gly	Tyr	Pro	Glu	Thr
		275					280					285			
Gln	Glu	Ala	Leu	Cys	Pro	Gln	Val	Thr	Trp	Ser	Trp	Asp	Gln	Leu	Pro
	290					295					300				
Ser	Arg	Ala	Leu	Gly	Pro	Ala	Ala	Ala	Pro	Thr	Leu	Ser	Pro	Glu	Ser
305					310					315					320
Pro	Ala	Gly	Ser	Pro	Ala	Met	Met	Leu	Gln	Pro	Gly	Pro	Gln	Leu	Tyr
			325						330					335	
Asp	Val	Met	Asp	Ala	Val	Pro	Ala	Arg	Arg	Trp	Lys	Glu	Phe	Val	Arg
		340						345					350		
Thr	Leu	Gly	Leu	Arg	Glu	Ala	Glu	Ile	Glu	Ala	Val	Glu	Val	Glu	Ile
		355					360					365			
Gly	Arg	Phe	Arg	Asp	Gln	Gln	Tyr	Glu	Met	Leu	Lys	Arg	Trp	Arg	Gln
	370					375					380				
Gln	Gln	Pro	Ala	Gly	Leu	Gly	Ala	Val	Tyr	Ala	Ala	Leu	Glu	Arg	Met
385					390					395					400
Gly	Leu	Asp	Gly	Cys	Val	Glu	Asp	Leu	Arg	Ser	Arg	Leu	Gln	Arg	Gly
			405					410					415		

Pro

<210> 6
 <211> 507
 <212> DNA
 <213> human

<220>
 <221> misc_feature
 <222> (152)..(152)
 <223> n equals a, t, g, or c

<220>
 <221> misc_feature
 <222> (199)..(199)
 <223> n equals a, t, g, or c

<220>
 <221> misc_feature

```

<222> (272)..(272)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (285)..(285)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (310)..(310)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (322)..(322)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (329)..(329)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (331)..(331)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (344)..(344)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (353)..(353)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (363)..(363)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (368)..(368)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (370)..(370)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (374)..(374)
<223> n equals a, t, g, or c

```

<220>
<221> misc_feature
<222> (376)..(376)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (388)..(388)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (393)..(393)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (403)..(403)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (407)..(407)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (409)..(410)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (414)..(414)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (416)..(416)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (421)..(421)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (424)..(424)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (426)..(426)
<223> n equals a, t, g, or c

<220>

```

<221> misc_feature
<222> (451)..(452)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (462)..(463)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (466)..(466)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (468)..(469)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (471)..(471)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (486)..(486)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (489)..(489)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (495)..(495)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (497)..(497)
<223> n equals a, t, g, or c

<220>
<221> misc_feature
<222> (502)..(504)
<223> n equals a, t, g, or c

```

```

<400> 6
aattcggcac agctcttcag gaagtcagac cttccctggt ttaccttttt tctggaaaaa      60
gcccaactgg gactccagtc agtaggaaag tgccacaatt gtcacatgac cgggtactgga      120
agaaactctc ccaccaaca tcacccagtg gnatgggaac actgatgaac ttttactgc      180

```

acttggcatt atttttgtna agctgaatgt gataataagg gcactgatgg aaatgtcttg	240
atcattccgg ttgtgcgtag tttgagattt gngtttgggg atgtncattg tgtttgacag	300
cacttttttn atccctaatag tnaaatgcnt natttgattg tganttgggg gtnaacattg	360
gtnaaggntn ccctnttgac acagtagntg gtncccgact tanaatngnn gaanangatg	420
natnangaac ctttttttgg gtgggggggt nncggggcag tnnaangnng nctccccagg	480
tttggngtng caatngngga annntgg	507

<210> 7
 <211> 226
 <212> DNA
 <213> human

<400> 7	
ttttttttgt agatggatct tacaatgtag cccaaataaa taaataaagc atttacatta	60
ggataaaaaa gtgctgtgaa aacaatgaca tcccaaacca aatctcaaag tacgcacaaa	120
cggaatgata cagacatttc cataggtcct tattatcaca ttcagcttat aaaataatgc	180
caagtgcagt gaaaagttac aggatgttcc atccactggg tggatt	226

<210> 8
 <211> 25
 <212> DNA
 <213> human

<400> 8	
cgcccatgga gtctgctctg atcac	25

<210> 9
 <211> 30
 <212> DNA
 <213> human

<400> 9	
cgcaagcttt tagcctgatt ctttgtggac	30

<210> 10
 <211> 36
 <212> DNA
 <213> human

<400> 10	
cgcgatccg ccatcatgga acaacgggga cagaac	36

<210> 11
 <211> 27
 <212> DNA

<213> human

<400> 11

cgcggtacct taggacatgg cagagtc

27

<210> 12

<211> 30

<212> DNA

<213> human

<400> 12

cgcggtacct tagcctgatt ctttgtggac

30

<210> 13

<211> 733

<212> DNA

<213> human

<400> 13

gggatccgga gcccaaactct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60

aattcgaggg tgcaccgtca gtcttcctct tcccccaaa acccaaggac accctcatga 120

tctcccgga tcttgaggtc acatgcgtgg tgggtggacgt aagccacgaa gaccctgagg 180

tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240

aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300

ggctgaatgg caaggagtac aagtgcgaagg tctccaacaa agccctccca acccccatcg 360

agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420

catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctgggc aaaggcttct 480

atccaagcga catgcgcgtg gagtgggaga gcaatgggca gccggagAAC aactacaaga 540

ccacgcctcc cgtgctggac tccgacggct cttcttctct ctacagcaag ctcaccgtgg 600

acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggtctctg 660

acaaccacta cagcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720

gactctagag gat 733

<210> 14

<211> 257

<212> DNA

<213> human

<220>

<221> misc_feature

<222> (37)..(37)

<223> n equals a, t, g, or c

<220>
 <221> misc_feature
 <222> (79)..(79)
 <223> n equals a, t, g, or c

<220>
 <221> misc_feature
 <222> (81)..(81)
 <223> n equals a, t, g, or c

<220>
 <221> misc_feature
 <222> (124)..(124)
 <223> n equals a, t, g, or c

<220>
 <221> misc_feature
 <222> (233)..(233)
 <223> n equals a, t, g, or c

<400> 14	
agggctgaaa cccacgggcc tgagagacta taagagngtt ccctaccgcc atggaacaac	60
ggggacagaa cgccccgnc ncttcggggg cccggaaaag gcacggccca ggacccagg	120
aggngcgggg agccaggcct gggccccggg tccccaagac cettgtgtc gttgtcgccg	180
cggtcctgct gttggtgagt ccccgccgcg gtcctggct ggggaagagc gtnctggcg	240
cctggagagg gcaggga	257